

ABSTRACT OF THE DISCLOSURE

A monomer to produce polybenzimidazole is dissolved in polyphosphoric acid. For example, polysulfated phenylene sulfonic acid (acidic group-possessing polymer) is further dissolved in this solution. In this procedure, the acidic group-possessing polymer and the monomer are adsorbed to one another in accordance with the acid-base interaction. When the monomer is polymerized, for example, by means of dehydration polymerization in this state, then polybenzimidazole is synthesized, and the polybenzimidazole and the acidic group-possessing polymer are compatibilized with each other to produce a compatibilized polymer. When the compatibilized polymer is deposited as a solid, and the solid is separated from polyphosphoric acid, then the compatibilized polymer is obtained. A proton conductive solid polymer electrolyte as a final product is manufactured by forming the compatibilized polymer to have a predetermined shape.